

SEQUENCE LISTING

<110> HOECH-GULDBERG, Ove
DOVE, Sophie

<120> PIGMENT PROTEIN FROM CORAL TISSUE

<130> Q-65619

<140> 09/890,463

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<151> 1999-02-02

<160> 15

<170> PatentIn version 3.1

<210> 1

<211> 5

<212> PRT

<213> Acropora aspera, Acropora horrida, Montipora caliculata, Porites murrayensis,
Montipora monasteriata and Porites lobata

<400> 1

Ser Val Ile Ala Lys
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<210> 2

<211> 17

<212> PRT

<213> Acropora horrida

<400> 2

Ser Val Ile Ala Lys Gln Met Thr Tyr Lys Val Tyr Met Ser Gly Thr
1 5 10 15

Val

<210> 3

<211> 231

<212> PRT

<213> Acropora aspera

<400> 3

Ser Val Ile Ala Lys Gln Met Thr Tyr Lys Val Tyr Met Ser Gly Thr

1	5	10	15
Val Asn Gly His Tyr Phe Glu Val Glu Gly Asp Gly Lys Gly Lys Pro	20	25	30
Tyr Glu Gly Glu Gln Thr Val Arg Leu Ala Val Thr Lys Gly Gly Pro	35	40	45
Leu Pro Phe Ala Trp Asp Ile Leu Ser Pro Gln Cys Gln Tyr Gly Ser	50	55	60
Ile Pro Phe Thr Lys Tyr Pro Glu Asp Ile Pro Asp Tyr Val Lys Gln	65	70	75
Ser Phe Pro Gly Arg Tyr Thr Trp Glu Arg Ile Met Asn Phe Glu Asp	85	90	95
Gly Ala Val Cys Thr Val Ser Asn Asp Ser Ser Ile Gln Gly Asn Cys	100	105	110
Phe Ile Tyr His Val Lys Phe Ser Gly Leu Asn Phe Pro Pro Asn Gly	115	120	125
Pro Val Met Gln Lys Lys Thr Gln Gly Trp Glu Pro Asn Thr Glu Arg	130	135	140
Leu Phe Ala Arg Asp Gly Met Leu Ile Gly Asn Asn Phe Met Ala Leu	145	150	155
Lys Leu Glu Gly Gly Gly His Tyr Leu Cys Glu Phe Lys Ser Thr Tyr	165	170	175
Lys Ala Arg Lys Pro Val Lys Met Pro Gly Tyr His Tyr Val Asp Arg	180	185	190
Lys Leu Asp Val Thr Asn His Asn Lys Asp Tyr Thr Ser Val Glu Gln	195	200	205
Arg Glu Ile Ser Ile Ala Arg Lys Pro Leu Val Ala Cys Cys Phe Phe	210	215	220
Arg Val Lys Ser Arg His Lys	225	230	

<210> 4
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<212> PRT
<213> Acropora aspera

<400> 4

Ser Val Ile Ala Lys Gln Met Thr Tyr Lys Val Tyr Met Ser Gly Thr
1 5 10 15

Val Asn Gly His Tyr Phe Glu Val Glu Gly Asp Gly Lys Gly Lys Pro
20 25 30

Tyr Glu Gly Glu Gln Thr Val Arg Leu Ala Val Thr Lys Gly Gly Pro
35 40 45

Leu Pro Phe Ala Trp Asp Ile Leu Ser Pro Gln Cys Gln Tyr Gly Ser
50 55 60

Ile Pro Phe Thr Lys Tyr Pro Glu Asp Ile Pro Asp Tyr Val Lys Gln
65 70 75 80

Ser Phe Pro Gly Arg Tyr Thr Trp Glu Arg Ile Met Asn Phe Glu Asp
85 90 95

Gly Ala Val Cys Thr Val Ser Asn Asp Ser Ser Ile Gln Gly Asn Cys
100 105 110

Phe Ile Tyr His Val Lys Phe Ser Gly Leu Asn Phe Pro Pro Asn Gly
115 120 125

Pro Val Met Gln Lys Lys Thr Gln Gly Trp Glu Pro Asn Thr Glu Arg
130 135 140

Leu Phe Ala Arg Asp Gly Met Leu Ile Gly Asn Asn Phe Met Ala Leu
145 150 155 160

Lys Leu Glu Gly Gly Gly His Tyr Leu Cys Glu Phe Lys Ser Thr Tyr
165 170 175

Lys Ala Lys Lys Pro Val Lys Met Pro Gly Tyr His Tyr Val Asp Arg
180 185 190

Lys Leu Asp Val Thr Asn His Asn Lys Asp Tyr Thr Ser Val Glu Gln
 195 200 205

Cys Glu Ile Ser Ile Ala Arg Lys Pro Val Val Ala Cys Arg Phe Phe
 210 215 220

Arg Val Lys Ser Arg His Lys Tyr Ala Val Ala
 225 230 235

<210> 5
 <211> 841
 <212> DNA
 <213> Acropora aspera

<400> 5
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 tactttgagg tcgaaggcga tggaaaagga aagccttacg agggggagca gacggtaagg 120
 ttggctgtca ccaagggcgg acctctgcc a tttgcttggg atattttatc accacagtgt 180
 cagtacggaa gcataccatt caccaagtac cctgaagaca tccctgacta tgtaaagcag 240
 tcattccccg ggagatat ac atgggagagg atcatgaact ttgaagatgg tgcagtgtgt 300
 actgtcagca atgattccag catccaaggc aactgtttca tctacatgt caagttctct 360
 ggtttgaact ttctcccaa tggacctgtt atgcagaaga agacacaggg ctgggaaccc 420
 aacactgagc gtctctttgc acgagatgga atgctgatag gaaacaactt tatggctctg 480
 agttagaag gaggtggtca ctatttgtgt gaattcaa at ctacttaciaa ggcaaggaag 540
 cctgtgaaga tgccagggt a tcaactatgtt gaccgcaaac tggatgtaac caatcacaac 600
 aaggattaca cttccgttga gcagcgtgaa atttccattg cagcgaacc tttggtcgcc 660
 tgctgttttt tcagagtcaa atcaaggcac aaataagcag tggcgtaaaa aacgtagatt 720
 ctgatttttag cttagagaag taggaacgaa gaagtgtaga caaccttcaa tgattaaact 780
 tttgaaaaca acsccaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagcggc cgctcgaatt 840
 a 841

<210> 6
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 <213> Acropora aspera

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ctggctgtca ccaagggcgg acctctgccca tttgcttggg atattttatc accacagtgt	180
cagtacggaa gcataccatt caccaagtac cctgaagaca tccctgacta tgtaaagcag	240
tcattcccgg ggagatatatac atgggagagg atcatgaact ttgaagatgg tgcagtgtgt	300
actgtcagca atgattccag catccaaggc aactgtttca tctaccatgt caagttctct	360
ggtttgaact ttcctcccaa tggacctgtt atgcagaaga agacacaggg ctgggaaccc	420
aacactgagc gtctctttgc acgagatgga atgctgatag gaaacaactt tatggctctg	480
aagttagaag gaggtgggtca ctatttgtgt gaattcaaact ctacttaciaa ggcaaagaag	540
cctgtgaaga tgccagggtta tcactatgtt gaccgcaaac tggatgtaac caatcacaaac	600
aaggattaca cttccgttga gcagtgtgaa atttccattg cacgcaaacc tgtggtcgcc	660
tgccgttttt tcagagtcaa atcaaggcac aaatacgagc tggcgtaaaa aacgtagatt	720
ctgatttttag cttatagaag taggaacgaa gaagtgtaaa caaccattaa tgattaaact	780
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<210> 7
 <211> 18
 <212> PRT
 <213> Acropora aspera, Montipora caliculata and Porites murrayensis

<400> 7
 Ser Val Ile Ala Lys Gln Met Thr Tyr Lys Val Tyr Met Ser Gly Thr
 1 5 10 15

Val Asn

<210> 8
 <211> 25
 <212> PRT
 <213> Porites lobata

<400> 8
 Ser Val Ile Ala Lys Gln Met Thr Tyr Lys Val Tyr Met Ser Gly Thr
 1 5 10 15

Val Asn Asn His Tyr Glu Phe Val Thr
 20 25

<210> 9
<211> 225
<212> PRT
<213> Discosoma sp.

<400> 9

Met Arg Ser Ser Lys Asn Val Ile Lys Glu Phe Met Arg Phe Lys Val
1 5 10 15

Arg Met Glu Gly Thr Val Asn Gly His Glu Phe Glu Ile Glu Gly Glu
20 25 30

Gly Glu Gly Arg Pro Tyr Glu Gly His Asn Thr Val Lys Leu Lys Val
35 40 45

Thr Lys Gly Gly Pro Leu Pro Phe Ala Trp Asp Ile Leu Ser Pro Gln
50 55 60

Phe Gln Tyr Gly Asn Lys Val Tyr Val Lys His Pro Ala Asp Ile Pro
65 70 75 80

Asp Tyr Lys Lys Leu Ser Phe Pro Glu Gly Phe Lys Trp Glu Arg Trp
85 90 95

Met Asn Phe Glu Asp Gly Gly Val Val Thr Val Thr Gln Asp Ser Ser
100 105 110

Leu Gln Asp Gly Cys Phe Ile Tyr Lys Val Lys Phe Ile Gly Val Asn
115 120 125

Phe Pro Ser Asp Gly Pro Val Met Gln Lys Lys Thr Met Gly Trp Glu
130 135 140

Ala Ser Thr Lys Arg Leu Tyr Pro Arg Asp Gly Val Leu Lys Gly Glu
145 150 155 160

Ile His Lys Ala Leu Lys Leu Lys Asp Gly Gly His Tyr Leu Val Glu
165 170 175

Phe Lys Ser Ile Tyr Met Ala Lys Lys Pro Val Gln Leu Pro Gly Tyr
180 185 190

Tyr Tyr Val Asp Ser Lys Leu Asp Ile Thr Ser His Asn Glu Asp Tyr
195 200 205

Thr Ile Val Glu Gln Tyr Glu Arg Thr Glu Gly Arg His His Leu Phe
210 215 220

Leu
225

<210> 10
<211> 230
<212> PRT
<213> Discosoma sp.

<400> 10

Met Ser Lys Gly Glu Glu Leu Phe Thr Gly Val Val Pro Ile Leu Val
1 5 10 15

Glu Leu Asp Gly Asp Val Asn Gly His Lys Phe Ser Val Ser Gly Glu
20 25 30

Gly Glu Gly Asp Ala Thr Tyr Gly Lys Leu Thr Leu Lys Phe Ile Cys
35 40 45

Thr Thr Gly Lys Leu Pro Val Pro Trp Pro Thr Leu Val Thr Thr Phe
50 55 60

Ser Tyr Gly Val Gln Cys Phe Ser Arg Tyr Pro Asp His Met Lys Arg
65 70 75 80

His Asp Phe Phe Lys Ser Ala Met Pro Glu Gly Tyr Val Gln Glu Arg
85 90 95

Thr Ile Phe Phe Lys Asp Asp Gly Asn Tyr Lys Thr Arg Ala Glu Val
100 105 110

Lys Phe Glu Gly Asp Thr Leu Val Asn Arg Ile Glu Leu Lys Gly Ile
115 120 125

Asp Phe Lys Glu Asp Gly Asn Ile Leu Gly His Lys Leu Glu Tyr Asn
130 135 140

Tyr Asn Ser His Asn Val Tyr Ile Met Ala Asp Lys Gln Lys Asn Gly
145 150 155 160

Ile Lys Val Asn Phe Lys Ile Arg His Asn Ile Glu Asp Gly Ser Val
165 170 175

Gln Leu Ala Asp His Tyr Gln Gln Asn Thr Pro Ile Gly Asp Gly Pro
180 185 190

Val Leu Leu Pro Asp Asn His Tyr Leu Ser Thr Gln Ser Ala Leu Ser
195 200 205

Lys Asp Pro Asn Glu Lys Arg Asp His Met Val Leu Leu Glu Phe Val
210 215 220

Thr Ala Ala Gly Ile Thr
225 230

<210> 11
<211> 20
<212> DNA
<213> Artificial

<220>
<221> misc_feature
<223> PCR Primers

<400> 11
tcggttatcg ctaaacagat

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<210> 12
<211> 20
<212> DNA
<213> Artificial

<220>
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<223> PCR Primers

<400> 12
tttgtgcctt gatttgactc

20

<210> 13
<211> 20
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<220>
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C <223> PCR Primers

<400> 13
cgccactgcg tatttgtgcc

20

<210> 14
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<212> DNA
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<220>
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<400> 14
ggcgaccaca ggtttgcgtg

20

<210> 15
<211> 30
<212> DNA
<213> Artificial
<220>
<221> misc_feature
<223> PCR Primers

<400> 15
tccggttatcg ctaaacagat gacctacaaa

30